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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,987	08/20/2003	Paul Edward Stamets	PSI-Div	1143
7590	07/09/2004		EXAMINER LEVY, NEIL S	
William R. Hyde 1833 10th Street Penrose, CO 81240			ART UNIT 1616	PAPER NUMBER
DATE MAILED: 07/09/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/646,987

Applicant(s)

STAMETS, PAUL EDWARD

Examiner

Neil Levy

Art Unit

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

Claims 1, 2, 4-7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 6,660,290. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims are met by the species of the patent claims.

Claims 1, 3-9 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 209-213, 216-219, 222, 225, 226, 229, 235, 240, 241, 243-246, 250, 464 of copending Application No. 09/969,456. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims overlap subject matter, and are obvious variants "wood" includes saw dust; grain, carbohydrate; corn cob is cellulose; the insect pathogens are seen as inclusive of the species and generic to the strains as recited in 960456. One of ordinary skill in the art of using entomopathogenic fungi would readily recognize a number of fungal organisms as effective given the claims of, either application against the other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1, 2, 4 and 6 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for *Metarhizium* and *Beauveria*, does not reasonably provide enablement for any fungal species or genus. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims. Many references show repellency, no lethality or attractancy, some for some pest

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species, others for others, or none at all of record; Eyal – 5360607; Gunnar show alternative effects.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Howell - 5165929.

See col. 2 – Mucorales Mold – grown on cellulose containing solids – cocoa powder – attract and kill ants, in general thus inclusive of carpenter.

Claim 1 is rejected under 35 U.S.C. 102(d) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over D'Orazio – 4,363,798.

Here too, social insects are attracted, and killed – by cultivating co-wood or sew dust (Example 1) – Added toxicant were quicker than Fungus alone (Table 1).

Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Esenther et al 3070495.

Fungus grown on cellulose – Wood, provides (col. 1, lines 56-63) a mycelial matt, dried, powdered and applied to attract and kill termites (top, col. 2).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 5, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howell or D'orazio or Esenther et al in view of Andersch et al 5,418,164 and Sugiura et al 572,853.

Primary references (above) show it was known to attract and kill social insects by application of Mycelia at infested sites. The use of freeze-drying, refrigeration and reactivation was not discussed; neither were, the particular cultivation methods.

Andersch shows the use of carbon dioxide, adjustable by artisan, to the degree desired, to so store (col. 10, lines 13022) for preparation of M. Anisopliae (col. 9) to control (col. 10, lines 48-49). Claim 10 shows mycelia to be effective.

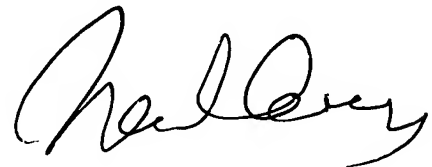
Sugiura farther show efficacy of M. anisopliae control of C. Formosa us (example 3). Sugiura also show required attractiveness-contact was evident, using fungal culture-substantially free of conidia, preparation and carriers are of the instant forms (col. 2, bottom, col. 3).

Thus, the artisan would find it obvious to prepare particular combinations, and concentration and ratios of components depending upon the target species, desired number of applications, length of time for desired protection, ease of handling and degradation, for example.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neil Levy whose telephone number is (571) 272-0619. The examiner can normally be reached on Tuesday through Friday 7 AM to 5:30 Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman Page can be reached on (571) 272-0602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Levy/LR  
June 29, 2004

**NEIL S. LEVY**  
**PRIMARY EXAMINER**